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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,411	07/13/2001	Dieter Groitzsch	22750/484	4738

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EXAMINER	
PIERCE, JEREMY R	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/905,411	GROITZSCH ET AL.	
	Examiner	Art Unit	
	Jeremy R. Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The amendment filed on July 28, 2003 has been entered. Claims 1-4 and 10 have been amended. Claims 1-17 are currently pending. The amendment is sufficient to withdraw the 35 USC 102 and 103 rejections set forth in the last Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "A voluminous non-woven fabric having a textured yarn shot through it, at least in one preferential direction, comprising: an endless filament having a weight per unit area of 5 to 100 g/m^2." Is the claimed weight related to the nonwoven fabric or to a single endless filament? The current language is vague and indefinite. A straight reading of the claim indicates that the nonwoven fabric comprises a single endless filament having the claimed weight. However, from the scope of the previous claims and the Examples provided in the specification, it seems clear that the weight is referring to a nonwoven fabric. The Examiner will assume that the weight refers to the fabric, and that the fabric comprises endless filaments.

Claims 2-4 recite the nonwoven fabric has a "density" and that density is measured in "g/m^2." However, density in fabrics is made in units such as g/m^3, and not g/m^2. The claimed unit of measure is weight per unit area measurement of the fabric. Applicant has amended claim 1 to overcome a similar rejection in the previous Office Action. However, claims 2-4 also need to be amended to show this change.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 6-9, 14, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Zafiroglu (U.S. Patent No. 5,308,674).

Zafiroglu disclose a stitchbonded fabric particularly suitable for industrial uses (Abstract). The fabric is advantageously formed with continuous filament fibers to provide superior tear strength (column 9, lines 28-31). The fibrous layer may weigh between 50 and 100 gsm (column 3, lines 7-8). A bulkable thread is stitched to the fabric (column 2, lines 14-15). The thread may be multi-filament polyester with a titer of 154 dtex (Example V). The threads are attached 2 to 8 rows per centimeter with stitch spacing of 2 to 10 stitches per centimeter (column 1, lines 26-30). The bulkable threads are then shrunk up to 25% (column 4, lines 25-29). With regard to claim 6, Zafiroglu discloses the filaments in the nonwoven fabric may be 2.4 dtex (column 9, line 52).

With regard to claim 7, Zafiroglu discloses the temperature to bulk the yarns is 149 degrees C (column 9, line 61), which would be at least 25 degrees less than the plastification range of the nonwoven fibers. With regard to claim 8, the fabric is stretched in the cross machine direction (column 5, lines 17-42). With regard to claim 9, woodpulp may be included in the fabric up to 65% (column 2, line 13). With regard to claim 14, the side of the fabric with the bulkable threads would have a different structure than the side of the fabric without. With regard to claim 17, the fabric may be used as a cleaning wipe (column 1, line 65).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 5,308,674).

Zafiroglu do not disclose folding the fabric. It would be obvious to one having ordinary skill in the art to fold the fabric in order to store it more conveniently before use.

8. Claims 1-7, 14, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 4,773,238) in view of Zafiroglu (U.S. Patent No. 5,203,186).

The '238 patent discloses a nonwoven fabric stitched with an elastic thread (column 1, lines 60-67). The fabric may be formed from continuous filaments (column 2, lines 66-67). The weight per unit area of the fabric may be between 15 and 75 gsm, and the elastic thread may be stitched 2 to 8 rows per centimeter with stitch spacing of 1 to 7 stitches per centimeter (column 2, lines 15-32). However, the '238 patent does not teach stitchbonding with a textured multifilament thread. Zafiroglu's '186 reference acknowledges the '238 patent has a shortcoming by recognizing that the fabric was stitchbonded with elastic filaments (column 2, lines 3-12). The '186 patent discloses that stitchbonding with bulkable threads gives softer hand, improved drape, and decreased stiffness (column 2, lines 41-45). Such bulkable threads are reduced by 5 to 80% (column 3, lines 7-8). It would have been obvious to one having ordinary skill in the art to use the textured multi-filament yarn from the '186 patent as the stitchbonding yarn in the '238 patent in order to give softer hand, improved drape, and decreased stiffness, as taught by the '186 reference. With regard to claims 3-5, the '238 reference teaches that some point bonding maybe allowed so long as the gathering of the web is not impeded (column 2, lines 45-49). The '186 patent teaches that the nonwoven fabric may be bonded (column 3, line 37) and that bonding the web improves fabric stability and durability (column 1, lines 30-32). In Example 5 of the '186 patent, the nonwoven is pattern bonded with 625 points per square inch (column 11, lines 1-5). The points have a diameter of 0.02 inches, so each point has an area of 0.000314 square inches, which when multiplied by 625, equals approximately 0.2 square inches of bonding area per square inch. Therefore, the '186 reference teaches the patter to cover 20% of the

surface. It would have been obvious to one having ordinary skill in the art to point bond the fabric of the '238 patent to cover 20% of its surface in order to improve fabric stability and durability, as taught by the '186 patent. With regard to claim 6, the nonwoven fabric of the '238 patent may be 2.0 dtex (column 5, line 34). With regard to claim 7, the '186 patent discloses the temperature to bulk the yarns is 50 to 200 degrees C (column 3, lines 50-53), which would be at least 25 degrees less than the plastification range of the nonwoven fibers in the '238 patent. With regard to claim 14, the side of the fabric with the bulkable threads would have a different structure than the side of the fabric without. With regard to claim 15, Zafiroglu do not disclose folding the fabric. It would be obvious to one having ordinary skill in the art to fold the fabric in order to store it more conveniently before use. With regard to claim 17, both '238 (column 1, lines 56-58) and '186 (column 1, lines 40-42) patents disclose using the fabric as a wipe.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 5,308,674) in view of Nischwitz et al. (U.S. Patent No. 4,136,218).

The '674 patent does not disclose the synthetic fibers to be hydrophilic. Nischwitz et al. disclose a process for making synthetic fibers hydrophilic (Abstract). It would have been obvious to one having ordinary skill in the art to make the synthetic fibers of Zafiroglu hydrophilic in order to increase the absorbent capacity of the nonwoven fabric for better use as a cleaning wipe.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 4,773,238) in view of Zafiroglu (U.S. Patent No. 5,203,186) and further in view of Nischwitz et al.

Neither '238 nor '186 references disclose the synthetic fibers to be hydrophilic. Nischwitz et al. disclose a process for making synthetic fibers hydrophilic (Abstract). It would have been obvious to one having ordinary skill in the art to make the synthetic fibers of Zafiroglu hydrophilic in order to increase the absorbent capacity of the nonwoven fabric for better use as a cleaning wipe.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 5,308,674) in view of Srinivasan et al. (U.S. Patent No. 5,500,281).

The '674 patent does not include superabsorbent fibers in the nonwoven fabric. Srinivasan et al. disclose including superabsorbent fibers can greatly increase fluid holding capacity in diapers, wipes, and sanitary napkins (column 11, lines 29-35). It would have been obvious to one having ordinary skill in the art to incorporate superabsorbent fibers in the nonwoven of Zafiroglu in order to increase the fluid holding capacity for better use as a wipe, as taught by Srinivasan et al.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 4,773,238) in view of Zafiroglu (U.S. Patent No. 5,203,186) and further in view of Srinivasan et al.

Neither '238 nor '186 references include superabsorbent fibers in the nonwoven fabric. Srinivasan et al. disclose including superabsorbent fibers can greatly increase fluid holding capacity in diapers, wipes, and sanitary napkins (column 11, lines 29-35).

It would have been obvious to one having ordinary skill in the art to incorporate superabsorbent fibers in the nonwoven of Zafiroglu in order to increase the fluid holding capacity for better use as a wipe, as taught by Srinivasan et al.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 5,308,674) in view of Sawyer et al. (U.S. Patent No. 5,672,415).

The '674 patent does not teach incorporating crimped and dyed filaments into the bulky nonwoven fabric. Sawyer et al. teach that bulk can be improved by incorporating crimped filaments into a nonwoven that is used as a cleaning wipe (column 2, lines 16-51). It would have been obvious to one having ordinary skill in the art to include crimped fibers into the fabric of Zafiroglu in order to improve the bulk of the fabric, as taught by Sawyer et al. It would also have been obvious to one having ordinary skill in the art to use dye in the fabric to produce a fabric with the desired color for its intended use.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 4,773,238) in view of Zafiroglu (U.S. Patent No. 5,203,186) and further in view of Sawyer et al.

Neither '238 nor '186 patents teach incorporating crimped and dyed filaments into the bulky nonwoven fabric. Sawyer et al. teach that bulk can be improved by incorporating crimped filaments into a nonwoven that is used as a cleaning wipe (column 2, lines 16-51). It would have been obvious to one having ordinary skill in the art to include crimped fibers into the fabric of Zafiroglu in order to improve the bulk of the fabric, as taught by Sawyer et al. It would also have been obvious to one having

ordinary skill in the art to use dye in the fabric to produce a fabric with the desired color for its intended use.

15. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 5,308,674) in view of Cabell et al. (U.S. Patent No. 5,908,707).

The '674 patent does not disclose using a cleaning emulsion or silicone oil in the nonwoven fabric. Cabell et al. teach that impregnating a wipe with a cleaning emulsion can provide increased benefits in cleaning (column 2, lines 44-61). Cabell et al. also include using silicone oil as a lubricant for the fibers (column 11, line 37). It would have been obvious to one having ordinary skill in the art to incorporate a cleaning emulsion into the wipe of Zafiroglu in order to gain increased cleaning benefits and silicone oil in order to lubricate the fibers, as taught by Cabell et al.

16. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zafiroglu (U.S. Patent No. 4,773,238) in view of Zafiroglu (U.S. Patent No. 5,203,186) and further in view of Cabell et al.

Neither '238 nor '186 references disclose using a cleaning emulsion or silicone oil in the nonwoven fabric. Cabell et al. teach that impregnating a wipe with a cleaning emulsion can provide increased benefits in cleaning (column 2, lines 44-61). Cabell et al. also include using silicone oil as a lubricant for the fibers (column 11, line 37). It would have been obvious to one having ordinary skill in the art to incorporate a cleaning emulsion into the wipe of Zafiroglu in order to gain increased cleaning benefits and silicone oil in order to lubricate the fibers, as taught by Cabell et al.

Response to Arguments

17. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

18. Applicant argues that the Office Action does not allege that the claim would have been rendered obvious at the time of the invention. However, the Examiner used the past tense in the rejection, and "at the time of the invention" is implied with the rejection since the Patent Office uses the well-known standard set forth in Graham v. John Deere.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jeremy R. Pierce
Examiner
Art Unit 1771

October 7, 2003

ELIZABETH M. COLE
PRIMARY EXAMINER